UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/314,782	05/19/1999	SHIMON MULLER	0UN-P3987-JT	5640

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EXAMINER
VANDERPUYE, KENNETH N

ART UNIT	PAPER NUMBER
2661	13

DATE MAILED: 05/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____ .
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1,3-25,28-31,33-37,39-45,48 and 50-140* is/are pending in the application.
   4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) *4-25,28-31,33,39,40,52-71 and 83-128* is/are allowed.
6) ☒ Claim(s) *1,3,50,51,72,80-82 and 129-135* is/are rejected.
7) ☒ Claim(s) *41-45,48,73-77,79 and 136-140* is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☐ All   b) ☐ Some * c) ☐ None of:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
    3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
       application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____ .

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____ .

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 131 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The limitation "null starting delimiter is not disclosed in the specification."

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 134 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear what is meant by "encoding said second portion ...without and end code" Either

you are encoding data or not encoding data. If there is no end code it is not

clear how the start and end of a frame is determined.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the

basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 3, 50-51, 72, 78, 80-82, 129-130, 132-133, 135 are rejected

under 35 U.S.C. 103(a) as being unpatentable over Hui et al (6,198,749) in

view of Rogan et al(5,321,816)

With regards to claim 1, 51, Hui teaches a method comprising:

Receiving a communication from a process operating on a first network

entity(Fig. 4@22), wherein the communication is directed to a second

network entity(Fig. 4@68), distributing elements of said communication into

multiple portions(IVMUX incoming data), each said portion corresponding

to one of a plurality of channels established to convey a communication

between said first network and said second network entity(the Inverse

multiplexed signals represent data to be sent of separate analog

channels), sending said first portion of said communication on a first

channel established on a first communication medium coupled to said first

network entity and second network entity(see Fig. 4), sending said second

portion of said communication on a second channel established on a

second communication medium coupled to said first network entity and

said second network entity(see Fig. 4), wherein said communication is

transmitted to said second entity at a data rate in excess of one gigabit per

second(col. 1 line 62, 1,560, 000 bits per sec). Hui fails to teach encoding a

first portion of said communication with a first starting delimiter encoding a

second portion of said communication with a second starting delimiter,

wherein the second starting delimiter is different from the first starting

delimiter. Hui teaches that the inverse multiplexer frames the split up

digital signal but does not describe the frames in terms of delimiters(col. 5

lines 45-51). Rogan teaches dividing messages into packets and creating 2

start delimiters, one for the start of the message while the other is used to

indicate and intermediate packet.(col. 41 lines 31-44). In Hui Ethernet

frames are inverse multiplexed by distributing the reframed data onto

multiple channels. It would have been obvious to one of ordinary skill in the

art that the start delimiters are different since they indicate different portions

of a message. It would therefor be obvious to combine Hui with Rogan for

the purpose of indicating by way of delimiters different portion of the split up

Ethernet frames. The motivation being to enable the destination IVMUX to

correctly assemble the incoming data.

Claim 50 is rejected for the same reasons as claim 1 because Rogan

teaches two types of end delimiters one used for the end of a message and

the other used for the end of packet(col. 41 lines 31-44)

Claim 3 is rejected because the incoming data in Hui are Ethernet

frames.(Fig. 4)

Claims 72, 82, 135, 80-81 are rejected for the same reasons as claim

1 because start and end symbols are functionally equivalent to start and

end delimiters. They serve the same function.

Claim 78 is rejected because Hui uses the IVMUX to allot elements of

the incoming Ethernet frames onto first and second channels(Fig. 4).

Claims 129-130 are rejected because In Rogan, a packet containing

the start of the message and a packet containing the intermediate portion

of the message contain bytes of communication that are different.

Claims 132-133 are rejected because in Rogan a different start

delimiter is used for the start of the message and the intermediate part of

the message.

Allowable Subject Matter

Claims 4-24, 28-31, 33, 39-40, 52-71, 83-128 allowed.

Claims 41-45, 48, 73-77, 79, 136-140 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth N Vanderpuye whose telephone number is 703-308-7828. The examiner can normally be reached on M-F(7:30-5:00) Second Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doug Olms can be reached on 703-305-4703. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KNV
5-3-04

KENNETH VANDERPUYE
PRIMARY EXAMINER